TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

AN ORDER Granting the Application for Permit Nos. WDW410, WDW411, WDW412 and WDW413 to TexCom Gulf Disposal, LLC; TCEQ Docket No. 2007-0204-WDW; SOAH Docket No. 582-07-2673

On _____, the Texas Commission on Environmental Quality (Commission or TCEQ) considered the application of TexCom Gulf Disposal LLC (TexCom or Applicant) for Permit Nos. WDW410, WDW411, WDW412 and WDW 413, authorizing TexCom to construct and operate four Class I Underground Injection Control (UIC) wells in Montgomery County, Texas. Catherine C. Egan and Thomas H. Walston, Administrative Law Judges (ALJs) with the State Office of Administrative Hearings (SOAH), presented a Proposal for Decision (PFD) recommending that the Commission grant TexCom's Application for Permit Nos. WDW410, WDW411, WDW412 and WDW 413. After considering the ALJs' PFD, the Commission adopts the following Findings of Fact and Conclusions of Law:

I. FINDINGS OF FACT

General Findings & Procedural Issues

1. The Applicant is TexCom Gulf Disposal, LLC (TexCom), 3600 South Gessner Road, Suite 200, Houston, Texas 77063.

2. TexCom was formed as a Texas C Corporation to own, manage, and operate certain disposal businesses.

3. In February 2005, TexCom acquired an approximately 27-acre site for the purpose of developing a commercial non-hazardous industrial wastewater disposal facility (the Facility).

4. The site of the proposed Facility is located near the corner of Creighton Road and FM 3083 on the southeast side of the City of Conroe in Montgomery County (the Site).

5. The Site was previously owned by Crossroads Environmental, Inc. (Crossroads), which, in the early 1990s, applied to the Texas Natural Resource Conservation Commission (TNRCC) for authorization, to construct and operate a commercial Class I UIC well at the Site to dispose of non-hazardous industrial wastewater.

6. On February 7, 1994, the TNRCC issued UIC Permit No. WDW315 to Crossroads, authorizing the construction and operation of a Class I UIC well.

7. The existing Well WDW315 was drilled and constructed in 1999.

8. WDW315 is located within the Conroe Oil Field.

9. Surface facilities were never constructed, and no wastewater was ever injected into the existing Well WDW315.

10. UIC Permit No. WDW315 expired on February 7, 2004, and the well was scheduled to be plugged prior to TexCom's acquisition of the Site in February 2005.

11. Since acquiring the Site, TexCom has installed continuous monitoring and recording devices for pressure, temperature, injection flow rates, and injection volumes at the existing Well WDW315; and has, in accordance with an agreement with TCEQ, been re-calibrating the monitoring devices and recorders each calendar quarter, and conducting annual mechanical integrity tests of the well.

12. TexCom is requesting authorization to re-perforate the existing Well WDW315 and to construct and operate up to three additional Class I UIC wells at the Site to dispose of non hazardous wastewater generated by industrial operations in the area.

13. The existing well WDW315 will be re-permitted as Well WDW410, and the three additional proposed wells will be permitted as Wells WDW411, WDW412, and WDW413, each under its own separate UIC permit.

14. Under a separate Application, TexCom has also applied for a nonhazardous industrial solid waste permit (Permit No. 87758) to authorize the surface facility at the Site.

15. TexCom has applied for authorization to accept and dispose of Class I industrial wastewater, which is defined as nonhazardous by EPA and TCEQ. This excludes any waste with the characteristics of ignitability, corrosivity, reactivity, or toxicity, as well as a list of specific types of wastewaters generated from various industrial operations that EPA has determined to be hazardous.

16. All wastewater received by TexCom must meet the definition of nonhazardous when it is received.

17. In its Application, TexCom provided a list of 18 waste stream categories it proposes to accept, such as "aqueous waste with low solvents," "aqueous waste with reactive sulfides," and "acid aqueous waste."

18. The effluent streams proposed for injection are mostly water and may or may not contain low concentrations of certain organic and inorganic substances. Final composition of the various waste streams cannot be determined until the Facility is built and clients for disposal are put under contract.

19. TexCom submitted its UIC Application to TCEQ in August 2005.

20. TexCom made a copy of the application available for inspection and copying in a public place in Conroe, Texas.

21. By letter dated August 31, 2005, TCEQ declared the Application to be administratively complete.

22. TexCom submitted all required information in its applications for WDW410, WDW411, WDW412, and WDW413.

23. On September 6, 2005, TCEQ mailed the Notice of Receipt of Application and Intent to Obtain Underground Injection Control Permits to adjacent landowners, public officials, and other persons entitled to receive notice under TCEQ rules or who requested notice.

24. On September 20, 2005, TexCom published the Notice of Receipt of Application and Intent to Obtain Underground Injection Control Permits in *The Courier*, a newspaper regularly published in Montgomery County with the largest circulation of newspapers published in that county.

25. TCEQ Staff's technical review of the UIC Application was performed in accordance with standard TCEQ procedures and policies.

26. TCEQ Staff issued Notices of Deficiency to TexCom during technical review, and, in response, TexCom provided updated UIC Application materials on December 7, 2005, January 29, 2006, February 22, 2006, March 17, 2006, April 5, 2006, and April 19, 2006.

27. The updated Application materials submitted by TexCom satisfactorily addressed all issues raised in the Notices of Deficiency issued by TCEQ Staff.

28. TexCom submitted all required information in the Technical Report that was included as a part of the applications for WDW410, WDW411, WDW412, and WDW413.

29. A public meeting concerning the Application was held on March 9, 2006, in Conroe. Notice of the public meeting had been published on February 16, February 23, and March 2, 2006, in *The Courier*.

30. TCEQ Staff summarized its technical review in the "Technical Summary and Executive Director's Preliminary Decision" dated April 27, 2006.

31. By letter dated July 3, 2006, the TCEQ's Executive Director indicated that technical review of the Application was complete, and that he had made a preliminary decision to issue the Draft Permits.

32. On July 3, 2006, TCEQ mailed the Notice of Application and Preliminary Decision to adjacent landowners, public officials, and other persons entitled to receive notice under TCEQ rules or who requested notice.

33. On July 9, 2006, TexCom published the Notice of Application and Preliminary Decision in *The Courier*.

34. Environmental Protection Agency (EPA) Region 6 was provided with a copy of the Draft Permits. EPA's only comment was to note a typographical error in latitude/longitude, which has been corrected.

35. On January 11, 2007, the TCEQ's Executive Director issued written responses to public comments and indicated that none warranted any changes to the Draft Permits.

36. TexCom also submitted its UIC Application to the Railroad Commission of Texas (RRC). By letter dated September 16, 2005, the RRC indicated that it had conducted a review of the UIC Application, specifically studied aspects relating to injection operation, geology, and artificial penetrations within 1/4 mile of the Facility, and concluded that operation of the Facility would not injure or endanger any known oil or gas reservoir.

37. By letter dated April 13, 2007, TexCom requested that its UIC and Surface Facility Applications be directly referred to SOAH for a contested case hearing under TEX. WATER CODE § 5.557 and 30 TEX. ADMIN. CODE § 55.210.

38. SOAH scheduled the preliminary hearing for July 18, 2007, in the Montgomery County Commissioner's Courtroom.

39. On June 5, 2007, TCEQ mailed notice of the hearing to interested persons, public officials, and other persons entitled to receive notice under TCEQ rules or who requested notice.

40. TexCom arranged for notice of the hearing to be mailed on June 14, 2007, to 1,077 separate addresses, comprising all residential or business addresses and all owners of real property within one-half mile of the Site.

41. Notice of the hearing was published in *The Courier* and *The Houston Chronicle* on June 14, 2007.

42. TexCom's UIC and Surface Facility Applications were consolidated by SOAH for purposes of convenience and were considered during the same SOAH hearing.

43. At the preliminary hearing, the following were named as Parties to the proceeding: TexCom; the Executive Director of TCEQ; the Office of Public Interest Counsel (OPIC); Montgomery County; the City of Conroe; the Lone Star Groundwater Conservation District; Nicky E. Dyer; Flora Harrell; Edgar and Shirley Hoagland; Patty Mouton; James Langston; James A. Langston, III; Lois Nelson; James Nolan; George Phillips; Brian Rodel; Richard Ward; Edwin A. (Art) Wilson; and Al and Jerry Zaruba.

44. All of the individuals were aligned together as the "Aligned Individual Protestants;" Montgomery County and the City of Conroe were aligned as the "Aligned Protestants."

45. Prior to the hearing on the merits, James Nolan and George Phillips withdrew from the proceedings.

46. The hearing on the merits was held from December 12-18, 2007. The first three days of the hearing were conducted at the Montgomery County Commissioner's Court in Conroe, and the last two days were conducted at the SOAH in Austin.

47. All Parties except for OPIC pre-filed direct-case testimony and exhibits. All Parties participated in the hearing on the merits through their designated representatives.

48. The ED filed a response to public comment on the application, and each party was allowed to respond and to present evidence at the hearing on each issue raised in public comment or in the ED's response.

49. All Parties filed closing briefs on February 4, 2008, and responses to closing briefs on February 25, 2008, at which time the record closed.

Injection Well Construction and Operation

50. TexCom's wells are proposed to dispose of nonhazardous industrial wastewater by injecting it into a geological formation known as the Lower Cockfield, at depths between 6,045 and 6,390 feet (the Injection Interval).

51. The existing Well WDW315 (to be permitted as WDW410) was constructed according to the following specifications: After drilling the surface hole to approximately 4,110 feet, 10.75-inch surface casing was set and cemented to the surface with 2,590 sacks of cement. The protection casing hole was drilled to 6,578 feet and then 6,560 feet of 7 5/8-inch casing was run into the well. The casing was cemented to the surface in two stages with 1,260 sacks of cement. The injection well was completed with 4.5-inch tubing set on a packer at 5,108 feet.

52. All the down-hole components of the existing Well WDW315 were constructed out of carbon steel. All the components of the well, including the cement, were constructed out of materials compatible with the proposed injection fluid.

53. Annual tests have demonstrated that the existing Well WDW315 possesses mechanical integrity and has not developed any leaks.

54. The same basic design and construction techniques and materials used to construct Well WDW315 will be used to construct Wells WDW411, WDW412, and WDW413.

55. The proposed total drilling depth for each well is approximately 6,600 feet kelly bushing (KB). WDW315 has a total depth of 6,578 feet KB.

56. The surface casing for each of TexCom's wells will be set to 4,110 feet, which is below the lowest formation containing an underground source of drinking water (USDW).

57. The casing and cement used will be designed for the 30-year life expectancy of the wells, including the post-closure care period.

58. An electric motor driven-pump or pumps will be located at the surface to create pressure to force the wastewater down to the bottom of the wells. Surface injection pressure for the injection wells is anticipated to range between 0 pounds per square inch (psi) and 1,250 psi.

59. The maximum flow of wastewater to the injection well system at full facility production will be 350 gallons per minute for the entire Facility. This is a cumulative maximum flow, meaning that the total of the injection rates for all operating wells at the site cannot exceed this total rate.

60. Well WDW315 was initially perforated in various sand intervals from 6,184 to 6,372 feet. Before beginning injection operations, TexCom will be required to re-perforate WDW315 from 6,045 to 6,390 feet in order to re-position the injection interval in the optimal range for injection. Wells WDW411, WDW412 and WDW413 will also be required to be perforated from 6,045 to 6,390 feet.

61. The injection wellheads area will be required to have secondary containment areas to collect and contain spills, leaks, or stormwater.

62. The injection wellheads will be required to have a built-in monitoring system, consisting of devices that will continuously record, at a minimum, injection tubing pressures, injection flow rates, injection fluid temperatures, injection volumes, tubing-long-string casing annulus pressure, and tubing-long-string casing annulus volume. All gauges, pressure sensing devices and recording devices will be required to be tested and calibrated quarterly.

63. The injection wellheads will be required to be equipped with automatic alarm and shutoff systems designed to sound in the event that pressures, flow rates, or other parameters designated by the Executive Director exceed a range or gradient specified in the permits.

64. The integrity of the long string casing, injection tubing, and annular seal will be required to be tested by means of an approved pressure test with a liquid or gas annually and whenever there has been a well workover.

65. The integrity of the cement within the injection zone will be required to be tested by means of an approved radioactive tracer survey annually.

66. Corrosion monitoring of well materials will be required to be conducted quarterly.

67. If a loss of mechanical integrity is discovered, TexCom must immediately cease injection, take reasonable steps necessary to determine if there has been a release into any unauthorized zone, notify the TCEQ Executive Director of the loss within 24 hours, notify the Executive Director when injection can be expected to resume, and restore and demonstrate mechanical integrity to the satisfaction of the Executive Director prior to resuming injection of wastewater covered by the permit.

Location

68. The geology of the area was described confidently and the limits of waste fate and transport can be accurately predicted through the data obtained from the existing well and the use of analytical and numerical models.

69. The proposed injection wells are located on the Conroe Oil Field.

70. The Conroe Oil Field was discovered in 1931 and operated by a single operator for virtually its entire lifespan.

71. The geological formations that are most relevant are (starting with the deepest and proceeding toward the surface) the Cockfield formation, the Jackson Shale formation, the

Catahoula Aquifer (which includes the Vicksburg and Frio Aquifers), and the Gulf Coast Aquifer System.

72. The Cockfield Formation is made up of a thick marine mudstone section overlain by interbedded sands and shales.

73. The Cockfield consists of four separate parts: (1) the Cockfield Shale Member (starting at 6,390 feet and extending deeper), (2) the Lower Cockfield Member (6,045 to 6,390 feet), (3) the Middle Cockfield Member (5,629 to 6,045 feet) and (4) the Upper Cockfield Member (5,134 to 5,629 feet).

74. Within the Cockfield formation, most historical oil production in the area has been from the Upper Cockfield. None has been from the Lower Cockfield.

75. The Lower Cockfield, which will serve as the Injection Interval, consists of approximately 345 feet of shales and shaley sands. The sharp upper contact of the Lower Cockfield is the lower boundary of a persistent 35-foot thick shale at the base of the Middle Cockfield.

76. The Lower Cockfield has sufficient thickness, porosity, permeability, areal extent, and lateral continuity to safely contain the injected fluid.

77. The Lower, Middle, and Upper Cockfield Members are separated from one another by 30 to 40-foot layers of shale, which will prevent injected wastewater or any other substances from passing vertically between them.

78. The only place the Lower, Middle, and Upper Cockfield Members may be in communication with each other within the Area of Review (AOR) is at the fault 4,400 feet south of the site, the EW-4400-S fault.

79. The proposed injection zone is the entire Cockfield Formation, which is approximately 1,222 feet thick.

80. The Cockfield Shale (starting at 6,390 feet and proceeding downward at least 182 feet) will serve as the Lower Confining Zone, and the marine mudstone of the Jackson Shale formation (4,088 to 5,134 feet) will serve as the Upper Confining Zone.

81. By 1930s, surface and production casings were being made of steel as opposed to wood, and state regulators had begun requiring actual surveying of well locations.

82. During the 1930s, the oil and gas wells in the area were drilled by the same company, and all were completed in the Upper Cockfield, except for a few that were drilled to the Wilcox sands (12,000 feet depth) that were dry and plugged.

83. Even if the field operator had drilled a well to a lower depth looking for oil, the operator would likely have plugged that well back to the Upper Cockfield with cement or mechanical plugs in order to prevent the inward flow of brine from the lower zones and for oil production.

84. There are 505 artificial penetrations through the Jackson Formation within the 2.5-mile AOR.

85. By the early 1930s, the standard practice for abandoning oil wells was to plug them with cement.

86. If there were abandoned wells that had been drilled through the Jackson Shale formation that lacked adequate casing and were not plugged with cement, they would not have withstood the pressures exerted by the surrounding mudstone of the Jackson Shale formation and would have collapsed within a matter of years.

87. The COI is the area within which the reservoir pressure build-up over the lifetime of the facility is sufficient to, theoretically, displace a drilling mud plug in an abandoned well exposed to that pressure build-up.

88. Six of the 505 artificial penetrations within the AOR are located within the 750-foot COI calculated by TexCom.

89. Each of the six artificial penetrations within the 750-foot COI calculated by TexCom was completed at depths in or above the Upper Cockfield, the formation from which oil and gas has been historically produced.

90. Each of the six artificial penetrations within the 750-foot COI calculated by TexCom was plugged with cement.

91. There are no artificial penetrations within the 750-foot COI calculated by TexCom that penetrate into the Lower Cockfield.

92. The bases of these six wells and the top of the Injection Interval in the Lower Cockfield are vertically separated by 800-900 feet of rock and sand.

93. As indicated by the WDW315 geophysical logs, the Jackson Shale formation exists between 4,088 and 5,180 feet, for a total of 1,092 feet.

94. In the area surrounding the Site, the overlying confining layers of the Jackson Shale formation and the underlying Cockfield Shale Member are free of transecting, vertically transmissive faults and fractures, and these formations are sufficiently thick, impermeable, and laterally continuous to confine the injected wastewater.

95. The Jackson Shale formation is composed of a semi-solid, dough-like substance. It is impermeable, free from transmissive faults or fractures, and will prevent any upward migration of liquids out of the Cockfield formation in the AOR.

96. The Jackson Shale formation would likely have collapsed into and sealed any improperly cased, abandoned boreholes drilled into the Upper Cockfield during the 1930's or earlier.

97. The Jackson Shale formation has a net impermeable shale thickness of approximately 1,000 feet.

98. Without improperly plugged artificial penetrations extending into the portion of the TexCom waste plume located within the COI, identified by TexCom, there is no mechanism for injected wastewater to escape the Injection Zone, which is thousands of feet below the USDWs.

99. The production of more than 700 million barrels of oil in the area indicates that the Jackson Formation is still acting as an intact trapping feature and has not been breached.

100. There are two relevant faults within the AOR. The first is an east-west fault located approximately 4,400 feet to the south of the TexCom site with a 100 to 150-foot down-to-the-basin off-set (the EW-4400-S fault). The second is a parallel fault with up to approximately 75 feet of down-to-the-basin offset, mapped on the extreme southern edge of the AOR.

101. Neither of the two faults within the AOR is vertically transmissive.

102. Neither of the two faults within the AOR is capable of propagating upward through the Jackson Formation because of, among other things, its dough-like consistency.

103. Any faults in the area, including those identified within the AOR, would be sealed by the mudstone of the Jackson Formation, which lacks the strength to maintain open channels.

104. If other small faults with limited offset exist in the area, they would not influence the engineering or the safety margins of the project.

105. Within the AOR, the piezometric surface of the fluid in the injection zone is greater than the piezometric surface in the deepest USDW.

106. The TexCom site is located in an area with a seismic risk zone of 0.

107. The Gulf Coast Aquifer System is the major groundwater aquifer system in the area. The aquifers that make up the System in the vicinity of the Site are the Chicot Aquifer (0 to 150

feet), the Evangeline Aquifer (150 to 715 feet), the Burkeville Aquifer (715 to 1,010 feet), and the Jasper-Oakville Aquifer (1,010 to 1,525 feet).

108. The deepest drinking water wells in the area are completed at depths of between 1,000 and 1,500 feet deep, but the vast majority are only 140-200 feet deep.

109. The Catahoula Aquifer, which includes the Vicksburg and Frio Aquifers, lies below the deepest water wells and the Gulf Coast Aquifer System, at a depth of between 1,525 and 4,088 feet in the vicinity of the TexCom site.

110. The Catahoula Aquifer is largely a thick mudstone rather than an aquifer, but it does contain isolated, thin sands.

111. The mudstones in the Catahoula formation separate its sands from the overlying Jasper-Oakville Aquifer and serve as a further isolating element to separate the deeper Cockfield sands from the shallower Gulf Coast Aquifer System.

112. The base of the USDW in the area varies, but is no deeper than the base of the Catahoula Aquifer at approximately 4,088 feet beneath the surface and above the Jackson Shale formation.

113. Water with less than 10,000 parts per million (ppm) total dissolved solids (TDS) is considered suitable for drinking water. Below the Catahoula, the pore water is approximately 35,000 ppm TDS and is frequently mixed with varying amounts of hydrocarbons.

114. The Catahoula Aquifer has water that contains fewer than 10,000 ppm TDS.

115. The water in the Catahoula Aquifer is likely treatable to health and aesthetic standard to serve as drinking water.

116. The Catahoula is separated from the Injection Interval (Lower Cockfield) by the 1,092-foot thick Jackson Shale formation and almost an additional 1,000 feet of sands and shales in the Upper and Middle Cockfield members.

117. Due to the presence of an extensive, impermeable Upper Confining Zone (Jackson Shale formation), there is no communication between the USDW and any Members of the Cockfield Formation.

118. As recently as 2002, the Lower part of the Catahoula Aquifer was being used for permitted disposal of produced oilfield brine and other Class II wastes.

119. The Catahoula Aquifer is the lowermost USDW in the AOR.

120. No sequence of strata separate the top of the Jackson Shale formation from the bottom of the Catahoula Aquifer.

121. The Catahoula Aquifer is a USDW source and therefore cannot serve as an added layer of protection for USDWs or freshwater aquifers.

122. If any injected wastewater were capable of migrating upward out of the Lower Cockfield, through the Middle and Upper Cockfield members and the Jackson Shale formation, the Catahoula Aquifer between approximately 2,800 feet and 4,000 feet would not serve as a buffer zone between the top of the Jackson Confining Unit and the underground drinking water supply.

123. The multiple layers of shale that separate the different member of the Cockfield formations and separate the Upper Cockfield member from the Jackson Shale formation will prevent the upward migration of fluids except possibly at the EW-4400-S fault.

124. The geology of the AOR, specifically the Cockfield layers of shale and Jackson Shale formation, prevent the vertical migration of fluid that might endanger the USDWs and fresh or surface water.

Reservoir Modeling

125. To predict the changes in reservoir pressure after 30 years of injection, TexCom used a computer model called BOAST98.

126. BOAST98 was developed specifically for the type of analysis performed by TexCom and is an accepted computer model.

127. BOAST98 uses algorithms to predict pressure dissipation.

128. Inputs into the reservoir model included interval layer thickness, permeability, porosity, structure, water saturation, temperature, rock compressibility, water compressibility, and the type of formation fluid found in the Lower Cockfield.

129. Values for the various input parameters for the reservoir model were generated from geologic data, drilling logs, wireline logging, standard correlations, structural maps, and analysis of injection/fall-off testing.

130. The values for certain input parameters will be verified by actual testing before the wells can be put into wastewater disposal service.

131. Additional fall-off testing will be conducted by TexCom after Well WDW315 is reperforated. Based on results of that testing, TexCom will be required to remodel and recalculate the COI and AOR. If the remodeling and recalculations produce results adverse to TexCom's current modeling assumption, TexCom will be required to conduct further investigation and make operational adjustments, as needed.

132. Based on TexCom's current modeling, the pressure increase at the wellbore as a result of continuous injection at maximum rates for 30 years is conservatively predicted through reservoir modeling to be 599 psi.

133. The Draft Permits require TexCom to annually monitor the actual pressure buildup in the injection zone.

134. The reservoir modeling results were used to calculate an estimated lateral extent of the injected effluent into the Lower Cockfield through volumetric analysis. This analysis determined that the injected waste fluids will travel, at most, 2,770 feet from the wellbore within the Lower Cockfield over the lifetime of the facility, and therefore will not reach the fault located approximately 4,400 feet to the south of the TexCom site.

135. The "fracture pressure" is the surface pressure that, if applied, would fracture the objective formation. Based on TexCom's current modeling, the fracture pressure for this project is conservatively calculated to be 2,082 psi.

136. The maximum allowable surface pressure (MASIP) is the maximum surface pressure at which fluids can safely be injected into the well. Based on TexCom's current modeling, it is conservatively calculated to be 1,413 psi.

137. The draft permit limits the injection pressure to 1,250 psi, which is lower than the currently calculated MASIP, and should not cause sufficient pressure in the Injection Zone to initiate any new fractures or propagate existing fractures in the Injection Zone or the Confining Zone.

Permeability Used in Reservoir Modeling

138. TexCom assumed a permeability of 500 millidarcies (mld) in its reservoir modeling.

139. Core analysis performed when WDW315 was drilled in 1999 indicated a permeability range of 550 md to 850 md for the section planned for re-perforation by TexCom.

140. A literature review indicated estimates of reservoir permeability as high as 1,400 mld.

141. A fall-off test conducted when existing Well WDW315 was drilled in 1999 indicated a permeability of 80.9 mld.

142. At the time that the 1999 fall-off test was conducted, WDW315 had been perforated by the previous owner of the property across 90 to 100 total feet of sand intervals spanning from 6,184 to 6,372 feet.

143. The fall-off test administered on WDW315 was a valid test, and its results provide the most reliable information available on the permeability of the current perforated interval.

144. In order to improve permeability, TexCom plans to re-perforate WDW315 across clean, non-shaley sand intervals within the Lower Cockfield.

145. The project specifications in the UIC Application call for TexCom to re-perforate WDW315 across a total of 145 feet of non-contiguous sand intervals (including the 90 to 100 feet perforated by the prior owner) spanning from 6,045 to 6,390 feet in order to re-position the injection zone in the optimal range for injection.

146. Although TexCom plans to re-perforate WDW-315, it should have used the 80.9 mld permeability measured by the 1999 fall-off test in its reservoir modeling to conservatively calculate the area of the COI.

147. For this Facility, the COI is the area of pressure increase within the injection zone of 421 psi or greater, which would be sufficient to displace a drilling-mud plug in an abandoned well and thus create a potential pathway to contaminate a USDW or freshwater aquifer.

148. The AOR is the territory within 2.5 miles of a proposed injection well, or the area within the COI, whichever is greater.

149. A permit condition should be added to Draft Permit WDW410 requiring TexCom under applicable rules to:

a. re-complete the existing Well WDW315 at well log depths of approximately 6,045 to 6,390 feet in accordance with applicable rules and the plans and specifications in the Application, and

b. within 90 days of re-completion, submit a Completion Report to the Executive Director in accordance with 30 Tex. Admin. Code § 331.45 and 331.65.

Transmissivity of Fault Located 4,400 Feet South of Facility

150. In its reservoir modeling, TexCom assumed that the fault 4,400 feet south of the site (fault EW-4400-SW) was horizontally transmissive, which was a conservative assumption with respect to determining the extent of the wastewater plume.

151. At the time of virgin reservoir conditions (i.e., before oil production had begun in the area), the oil/water contact was at the exact same depth, 4,990 feet below the surface, on either side of the fault. This is consistent with the two sides of the fault in communication and the fault being horizontally transmissive.

152. Shale smearing and sand-shale juxtaposition could render the EW-4400-S fault non-transmissive horizontally.

153. It is uncertain whether fault EW-4400-S is transmissive horizontally.

154. To be conservative and protective of USDWs, TexCom should have assumed that the EW-4400-S fault was not horizontally transmissive for purposes of determining the extent of the COI.

155. A permit condition should be added to Draft Permit WDW410 specifying that the radius of investigation for the fall-off test to be conducted after the existing well is re-perforated shall be at least 5,400 feet in order to determine whether the EW-4400-SW fault is horizontally transmissive.

156. Even an abandoned well that was not properly plugged would have been left with a column of drilling mud (a mud plug). In determining the COI, TCEQ requires applicants to assume that each abandoned well has only a mud plug consisting of 9 lb. per gallon mud with a 20 lb. gel strength.

157. For purposes of calculating the COI for this Facility, the pressure increase needed to dislodge an assumed mud plug in an abandoned artificial penetration was conservatively determined to be 421 psi.

158. TexCom calculated the COI in this case through reservoir modeling to be 750 feet. In this reservoir modeling, TexCom used a permeability factor of 500 md and assumed the EW-4400-S fault was laterally transmissive between the Lower and Middle Cockfield segments, resulting in an assumed injection interval that is 145 feet thick before the fault and 401 feet thick beyond the fault.

159. Using a permeability factor of 81 mld, Lone Star calculated a COI of 3,170 feet, assuming the EW-4400-S fault is transmissive, and a COI extending 14,300 feet (approximately 2.7 miles) north of the bore hole, assuming the fault is not transmissive and that the entire injection interval is 145 feet thick.

160. The AOR for the facility would have to be expanded beyond TexCom's prior investigation to the extent the COI extends beyond 2.5 miles from the proposed injection wells.

161. In calculating the COI, TexCom made a conservative assumption that TexCom would be continuously injecting wastewater at its maximum injection rate (350 gallons per minute), 24-hours a day, 365 days a year, for 30 years without interruption. In practice, injection is not expected to occur for more than 12 hours per day.

162. TexCom's model conservatively assumed that reservoir pressures will be increasing continuously for 30 years without interruption, while in reality the pressures will dissipate each time the pumps are turned off, reducing the actual pressure build-up.

163. The injected wastewater (waste plume) was conservatively determined to travel a maximum of 2,770 feet from the wellbore within the Lower Cockfield over the lifetime of the Facility.

164. The injected wastewater will not reach the fault 4,400 feet south of the site, and will remain contained in the Lower Cockfield.

165. It will not be possible for wastewater injected by TexCom to travel upward through existing artificial penetrations and into a USDW.

166. Reservoir modeling based on conservative assumptions demonstrates that the injected wastewater will not reach the EW-4400-S fault.

167. The maximum operating surface injection pressure of 1,250 psi will not cause movement of fluid out of the injection zone and subsequent contamination of USDWs and fresh or surface water.

168. The proposed injection wells would not impair any existing mineral rights given the geological structure of the site.

169. A permit condition should be added for WDW410 specifying that:

a. before injection operations begin, TexCom shall conduct a fall-off test on the existing well after it is re-perforated, in order to determine the permeability of the injection interval and to determine whether the EW-4400-S fault is laterally transmissive;

b. TexCom shall remodel and recalculate the COI based on the new information and determine whether any artificial penetrations extend into the injection interval of the recalculated COI or adjust operating parameters to limit the area of the COI, as necessary; and

c. the results of the new fall-off test shall be provided to counsel for Lone Star, the Aligned Protestants, the Individual Protestants, and PIC.

Well Closure and Post-Closure

170. TexCom's well closure plan includes notifying TCEQ of the intent to plug the well at least 60 days prior to closure, conducting testing of the injection zone and the mechanical integrity of the well, flushing the well with drilling fluid, removing the injection tubing, inserting balanced cement plugs at various depths, pressure testing each plug, placing a permanent marker at the wellhead, and then filing a plugging report with the Executive Director within 30 days after completion of plugging.

171. The conservatively estimated cost of plugging each proposed well is $76,400.

172. TexCom has provided financial assurance for the existing Well WDW315 in the form of a payment bond in the amount of $150,000. TexCom will be required to secure financial assurance for the proposed additional wells at least 60 days prior to drilling.

173. TexCom's post-closure plan calls for TexCom to submit a survey plat to the local zoning authority indicating the location of the wells relative to permanently surveyed benchmarks; submit a copy of the plat to the TCEQ UIC Unit in Austin; notify the Railroad Commission of Texas and provide information necessary to impose appropriate conditions on subsequent drilling activities that may penetrate the wells' confining or injection zone; retain records for a period of five years; and place a monument or permanent marker to identify the plugged well prior to abandonment.

Draft Permits

174. Although specifically tailored by TCEQ Staff for TexCom's facility, Draft Permit Nos. WDW410, WDW411, WDW412, and WDW413 are based on standard TCEQ templates.

175. The Draft Permits contain all of the same requirements, or substantively similar equivalents, found in permits issued by TCEQ to other UIC facilities.

176. The terms and conditions in the Draft Permits are similar to and at least as stringent as those found in other UIC permits issued by TCEQ.

Traffic

177. TexCom's entrance to the facility is on Creighton Road, approximately 700 feet west of the intersection of Creighton Road and Albert Morehead Road.

178. Residential and industrial property are located on this stretch of Creighton Road.

179. Creighton Road is a narrow, two-lane rural county road, with an unimproved shoulder.

180. Creighton Road is weight restricted, having a 30,000 pound maximum capacity, and has two 90-degree turns, one at Creighton and Albert Morehead Road and the other into TexCom's entrance.

181. The trucking traffic going to and from TexCom's facility would cause that part of Creighton road to deteriorate rapidly.

182. Incoming truck deliveries of nonhazardous waste may not be prescheduled or evenly distributed throughout the workday.

183. Incoming trucks may take any of five different routes to get to TexCom's facility, but all will need to travel down 700 feet of Creighton Road to access TexCom's entrance.

184. The five different routes to TexCom's facility include:

a. North and southbound traffic on IH-45 to Loop 336 to FM-3083 to Albert Morehead to Creighton Road;

b. Northbound IH-45 to Crighton Road to Creighton Road;

c. Northbound US 59 to FM-1314 to Loop 334 to FM-3083 to Albert Morehead to Creighton Road;

d. Westbound on FM-3083 to Albert Morehead to Creighton Road; or

e. Southbound on Jefferson Chemical Road to Albert Morehead to Creighton Road.

185. The condition of the 700-foot segment of Creighton Road that all truckers must use to enter TexCom's facility is not adequate for this type of heavy traffic and will pose a safety hazard to the public.

186. The Crighton/Creighton Road route has a load-restricted bridge, is narrow, and has two 90 degree curves that will require substantial speed reduction.

187. The Crighton/Creighton Road route does have geometric features, two 90 degree curves, and roadway conditions, narrow road and weight restrictions, that pose a safety problem with regard to trucks traveling to the facility.

188. The overall increase in traffic because of TexCom's facility will be minimal, except along the 700 feet of Creighton Road used by all truckers to get to TexCom's facility.

189. TexCom intends to construct a new site entrance along FM 3083 on 72 feet of its property and close the Creighton entrance.

190. TexCom has to obtain a permit from the Texas Department of Transportation (TxDOT) prior to constructing the entrance along FM 3083.

191. TxDOT will evaluate TexCom's proposed driveway for safety.

192. Relocating the entrance to FM 3083 will obviate traffic concerns along Creighton Road.

193. Tanker trucks traveling to TexCom's facility will be required to carry shipping papers identifying the truck's contents.

194. TexCom represented that it will keep specific information about its client's waste stream at the Facility.

Public Interest

195. Montgomery County is the third fastest growing county in Texas; currently its population is 423,000 and growing.

196. The area around the TexCom site is changing from residential and industrial to residential and commercial with the influx of new residents.

197. TexCom has no prior experience with Class I well disposal.

198. TexCom's project was planned around the existing injection well (WDW315); the well was permitted in 1994. The permit has expired.

199. TexCom's parent company's core business is in the biodiesel market and Class II injection-well disposal.

200. TexCom received a notice of violation from TCEQ at this facility for failing to respond to non-report notices, failing to post signs, and failing to paint the wellhead of the existing well.

201. TexCom's compliance history is classified as average and its compliance score is 3.1.

202. TexCom's compliance history indicates that TexCom has no history with TCEQ.

203. Montgomery County is dependent on groundwater from the Evangeline Aquifer as its sole source of water supply.

204. TexCom presented sufficient evidence regarding its analysis of whether any other alternative methods of disposal were feasible.

205. Montgomery County has several hundred businesses that generate nonhazardous wastewater.

206. Huntsman Chemical generates nonhazardous wastewater and is located on Jefferson Chemical Road approximately 1.2 miles from TexCom's facility.

207. Two other disposal sites exist within 100 miles that can accept nonhazardous wastewater, both outside Montgomery County.

208. A need for more nonhazardous waste disposal services exists in the area to serve sources of nonhazardous wastewater in Montgomery and nearby counties, including Harris County.

209. TexCom's sole operation will be dedicated to nonhazardous wastewater disposal.

210. No other waste disposal option (discharge to surface waters, onsite storage, land disposal or incineration) is a practical alternative to injection for TexCom's proposed commercial

operation at this Site, which was specifically selected by TexCom to make use of the existing Well WDW315.

211. Injection via UIC well is the most environmentally protective method for disposing of industrial wastewater, as it is the only method that permanently isolates the wastewater from the human environment and drinking water supplies.

212. For the types of wastes TexCom proposes to accept, liquid wastewaters with low concentrations of potentially hazardous constituents, injection is preferable over any other form of disposal from an environmental perspective.

213. Some amount of local economic stimulation will result from the construction and operation of TexCom's facility.

214. TexCom is currently seeking a partner that will have 60 percent ownership in it for an infusion of capital.

215. At the time of the hearing, TexCom indicated that Foxborough Energy Corp. (Foxborough) was that partner, but it was unclear whether the agreement was final.

216. No evidence was presented concerning Foxborough's compliance history.

217. Although TexCom admits it is looking for a partner in this project, TexCom showed it had the required resources to operate a Class I UIC facility.

218. The Facility will centralize waste disposal operations at a company with dedicated personnel and resources focused solely on wastewater disposal, as an alternative to various companies whose disposal operations are secondary or tertiary to their core business.

219. Overall risk reduction from centralized waste disposal is achieved through consolidated commercial disposal of wastes, as opposed to multiple waste disposal sites.

220. TexCom's proposed well will not encroach on any other existing rights in the area.

Reporting and Transcription Costs

221. By Order No. 1, the ALJs required a transcript to be prepared in this case because the hearing was scheduled to last longer than one day. *See* 30 TAC § 80.23 (b)(4).

222. TexCom paid the transcription costs totaling $8,616.50. This includes all regular, un-expedited transcription and delivery costs for the original and two copies of the transcript, travel expenses to Conroe, overtime fees, and other usual costs associated with recording and transcribing hearings.

223. The parties reached an agreement on the allocation of these costs. Under the agreement, TexCom is responsible for the $25.00 charge for "E-Transcript" and the $553.00 charge for "Exhibit Copies – Oversize or Color." The responsibility for the remaining $8,038.50 is allocated as follows: TexCom $4,019.25; Aligned Protestants $2,009.62; and Lone Star $2,009.63.

224. TexCom, the Aligned Protestants, and Lone Star were each represented by counsel and have demonstrated the financial ability to pay the reporting and transcription costs.

225. The availability of the transcript helped Applicant and all three Protestant Parties equally in preparing closing arguments and responses.

226. The agreed allocation of transcript costs is fair and reasonable, and Aligned Protestants and Lone Star should reimburse TexCom for the amounts shown above.

Other Remaining Issues

227. With respect to all other contested issues and all unrefuted issues, the Application and the remainder of the evidentiary record contain sufficient factual information regarding the UIC wells' design and operation to satisfy all applicable statutory and regulatory requirements.

II. CONCLUSIONS OF LAW

1. The Commission has jurisdiction over the disposal by injection of non-hazardous industrial waste and the authority to issue this permit under TEX. WATER CODE § 27.011.

2. Notice was provided in accordance with TEX. WATER CODE. § 27.018(b), 30 TEX. ADMIN. CODE Chapter 39, and TEX. GOV'T CODE §§ 2001.051 and 2001.052; and affected persons were provided an opportunity to request a hearing on TexCom's application in the manner required by law. Proper notice of the hearing and prehearing conference was given to affected persons pursuant to TEX. GOV'T CODE §§ 2001.051 AND 2001.052.

3. SOAH has jurisdiction to conduct a hearing and to issue a Proposal for Decision on contested cases referred by TCEQ. TEX. GOV. CODE § 2003.47.

4. As required by TEX. WATER CODE. § 27.012-.014, TexCom submitted a complete permit application that included all information required by 30 TEX. ADMIN. CODE §§ 281.5, 305.45, 305.49 and 331.121.

5. The Application was processed and the proceedings described in this Order were conducted in accordance with applicable law and rules of the TCEQ, specifically 30 TEX. ADMIN. CODE § 80.1 *et seq.*, and the State Office of Administrative Hearings, specifically 1 TEX. ADMIN. CODE § 155.1 *et seq.*, and TEX. WATER CODE. § 27.018.

6. The evidence in the record is sufficient to meet the requirements of applicable law for issuance of such permit, including the TEX. WATER CODE, Chapter 27 (the Injection Well Act) and 30 TEX. ADMIN. CODE Chapter 331.

7. The Draft Permit Nos. WDW410, WDW411, WDW412 and WDW413, as prepared by the TCEQ staff, include all matters required by law.

8. The four Class I UIC wells, if constructed and operated in accordance with the Injection Well Act, 30 TEX. ADMIN. CODE Chapter 331, and the Draft Permits, will not adversely affect public health or the environment.

9. If the Facility is operated in compliance with applicable law, issuance of the Draft Permits will not adversely affect the environment nor will it adversely affect the public health or welfare.

10. The contents of the permits to be issued to the Facility meet the requirements of the TEX. WATER CODE. §§ 27.011 and 27.051.

11. In accordance with 30 TEX. ADMIN. CODE § 305.44(a)(1), TexCom's UIC Application was signed by a responsible corporate officer.

12. In accordance with 30 TEX. ADMIN. CODE § 331.21, all geoscientific information in TexCom's Application was prepared by, or under the supervision of a licensed professional engineer, and was signed, sealed, and dated by the licensed professional engineer.

13. In accordance with TEX. WATER CODE § 27.015, the Railroad Commission of Texas issued a letter concluding that drilling or using the disposal well and injecting industrial waste into the subsurface stratum will not endanger or injure any known oil or gas reservoir.

14. The Draft Permits require TexCom to follow the plans and specifications contained in the UIC Application.

15. TexCom's wells, if constructed and operated in accordance with the specifications listed in the UIC Application and the requirements of the Draft Permits, will possess mechanical integrity as required by 30 TEX. ADMIN. CODE § 331.4 and will exhibit the mechanical integrity standards listed at 30 TEX. ADMIN. CODE § 331.43(a).

16. TexCom's wells, if constructed and operated in accordance with the specifications listed in the UIC Application and the requirements of the Draft Permits, will conform to the construction standards listed at 30 TEX. ADMIN. CODE § 331.62.

17. The casing depth for the proposed wells of 4,110 feet was set in consideration of the factors listed at TEX. WATER CODE § 27.056.

18. In accordance with TEX. WATER CODE § 27.016, TCEQ Staff physically inspected the TexCom site to determine the local conditions and the probable effect of the well, and determined the requirements for the setting of casing.

19. The well operations proposed in TexCom's UIC Application are consistent with the requirements of 30 TEX. ADMIN. CODE § 331.63.

20. Under 30 TEX. ADMIN. CODE § 331.65(a)(1), within 90 days after re-perforating existing Well WDW315, TexCom will be required to submit to TCEQ a report in which it must include the results of new fall-off testing, and, if appropriate, a re-calculated AOR and COI based on the results of that testing.

21. In accordance with 30 TEX. ADMIN. CODE § 331.121(c)(1), TexCom's proposed wells would be sited such that they inject into a formation that is beneath the lowermost formation containing, within 1/4 mile of the wellbore, a USDW or freshwater aquifer.

22. In accordance with 30 TEX. ADMIN. CODE § 331.121(c)(2), TexCom's proposed wells would be sited in an area that is geologically suitable.

23. In accordance with 30 TEX. ADMIN. CODE § 331.121(c)(3)(A), TexCom's proposed wells would be sited such that the injection zone has sufficient permeability, porosity, thickness, and areal extent to prevent migration of fluids into USDWs or freshwater aquifers.

24. In accordance with 30 TEX. ADMIN. CODE § 331.121(c)(3)(B)(i), the confining zone is laterally continuous and free of transecting, transmissive faults or fractures over an area sufficient to prevent the movement of fluids into a USDW or freshwater aquifer.

25. In accordance with 30 TEX. ADMIN. CODE § 331.121(c)(3)(B)(ii), TexCom's wells will be sited such that the confining zone contains at least one formation of sufficient thickness and with lithologic and stress characteristics capable of prevent initiation and/or propagation of fractures.

26. The confining zone is not separated from the base of the lowermost USDW or freshwater aquifer by at least one sequence of permeable and less permeable strata that will provide an added layer of protection for the USDW or freshwater aquifer as specified by 30 TEX. ADMIN. CODE § 331.121(c)(4)(A), .

27. Within the AOR, the piezometric surface of the fluid in the injection zone is not less than the piezometric surface of the lowermost USDW or freshwater aquifer, considering density effects, injection pressures, and any significant pumping in the overlying USDW or freshwater aquifer, as specified by 30 TEX. ADMIN. CODE § 331.121(c)(4)(B),.

28. In recognition of 30 TEX. ADMIN. CODE § 331.121(c)(4)(C), there is a USDW or freshwater aquifer present.

29. In accordance with 30 TEX. ADMIN. CODE § 331.121(c)(4)(D), because of the geology of the site, abandoned boreholes or other conduits will not endanger the USDWs, and the fresh or surface water.

30. TexCom's Closure Plan is consistent with the requirements of 30 TEX. ADMIN. CODE § 331.46.

31. In accordance with 30 TEX. ADMIN. CODE § 37.7021(c), financial assurance for the three proposed wells (WDW411, WDW412, and WDW413) need not be secured until 60 days prior to drilling.

32. In accordance with 30 TEX. ADMIN. CODE § 37.7021(c), the Draft Permits require TexCom to secure financial assurance in the amount needed to cover the cost of plugging each well.

33. In accordance with 30 TEX. ADMIN. CODE § 37.7021(c), financial assurance for the existing Well WDW315 (to become WDW410) must be secured at least 30 days prior to permit issuance.

34. In accordance with 30 TEX. ADMIN. CODE § 37.7021(c), evidence of financial assurance for the existing Well WDW315 has been provided by TexCom.

35. TexCom's Post-Closure plan meets the requirements of 30 TEX. ADMIN. CODE § 331.68(b).

36. In accordance with TEX. WATER CODE § 27.051(a)(4), TexCom has made a satisfactory showing of financial responsibility to the full extent required by applicable rules.

37. The monitoring and testing requirements set forth in the Draft Permits satisfy the requirements of 30 TEX. ADMIN. CODE §§ 305.154(a)(6) and 331.64.

38. Based on the nature of the proposed activity and the local geology, ambient monitoring as contemplated by 30 TEX. ADMIN. CODE § 331.64(G) is not required.

39. The Draft Permits incorporate all terms and conditions required by 30 TEX. ADMIN. CODE Chapter 305, including Subchapter H.

40. The Draft Permits contain appropriate conditions to assure compliance with all applicable requirements of Chapter 27 of the Texas Water Code and Chapter 331 of TCEQ's regulations.

41. Under TEX. HEALTH & SAFETY CODE § 361.0231, it is the state public policy that adequate capacity should exist for the proper management of industrial and hazardous waste generated in this state.

42. In accordance with TEX. WATER CODE § 27.051(a)(1), use of existing Well WDW-315 and installation of the three additional wells proposed by TexCom is in the public interest.

43. No corrective actions are needed with respect to any known artificial penetrations in the area in order to prevent or correct pollution of USDWs as contemplated by 30 TEX. ADMIN. CODE §§ 305.152 and 331.44.

44. In accordance with 30 TEX. ADMIN. CODE § 331.5(a), TexCom's wells, if constructed and operated in accordance with the specifications listed in the UIC Application and the requirements of the draft permits, will not cause or allow the movement of fluid that would result in the pollution of a USDW.

45. In accordance with 30 TEX. ADMIN. CODE § 331.121(c)(4)(D), abandoned boreholes or other conduits will not cause endangerment of USDWs, and fresh or surface water.

46. TexCom's wells, if constructed and operated in accordance with the specifications listed in TexCom's UIC Application and the requirements of the Draft Permits, will not cause pollution of fresh water as defined by TEX. WATER CODE § 27.002(4).

47. In accordance with Tex. Water Code § 27.051(a)(3), both ground and surface fresh water can be adequately protected from pollution if TexCom's proposed wells are operated in with the specifications listed in the UIC Application and the requirements of the Draft Permits.

48. In accordance with TEX. WATER CODE § 27.015, no impairment of oil or gas mineral rights will result from drilling or using the disposal wells and injecting industrial waste into the subsurface stratum.

49. In accordance with TEX. WATER CODE § 27.051(a)(2), existing rights, including, but not limited to mineral rights, will not be impaired by operation of the proposed wells in accordance with the specifications listed in TexCom's UIC Application and the requirements of the draft permits.

50. In accordance with TEX. WATER CODE § 5.557, TexCom's UIC Application satisfies all applicable statutory and regulatory requirements.

51. Pursuant to the authority of, and in accordance with, applicable laws and regulations, Permit Nos. WDW410, WDW411, WDW412, and WDW413 should be granted with the addition of the following "Recompletion and Other Requirements" to Draft Permit WDW410:

a. Prior to commencement of waste injection, the well shall be recompleted in the injection interval at the well log depths of approximately 6,045 to 6,390 feet in accordance with 30 TEX. ADMIN. CODE § 331.62 and the plans and specifications of the UIC Application.

b. Any changes to the plans and specifications in the UIC Application shall be performed in accordance with 30 TEX. ADMIN. CODE § 331.62(3).

c. Following recompletion and prior to commencement of waste injection, the reservoir characteristics and pressure response in the injection zone shall be monitored by means of a shutdown of the well for a sufficient time to conduct a valid observation of the pressure fall-off curve (a fall-off test). The radius of investigation of this fall-off test shall be at least 5,400 feet.

d. Following completion of the fall-off test, and prior to commencement of waste injection, TexCom shall use the fall-off test results to determine the permeability of the injection interval and to determine whether fault EW-4400-S is laterally transmissive.

e. TexCom shall remodel and recalculate the COI using the new information and determine whether any artificial penetrations extend into the injection interval of the recalculated COI that would endanger any USDW or adjust operating parameters to limit the area of the COI as necessary to protect USDWs and freshwater resources.

g. Results of the fall-off test and of the new reservoir modeling shall be provided to the ED and PIC, and counsel for Lone Star, the Aligned Protestants, and the Individual Protestants.

h. Within 90 days of recompletion of the well, Applicant shall submit a Completion Report to the Executive Director in accordance with 30 TEX. ADMIN. CODE §§ 331.45 and 331.65.

i. In compliance with 30 TEX. ADMIN. CODE § 331.65(a)(4), prior to beginning operations, Applicant must obtain written approval from the Executive Director.

52. A special condition should be added to Permit Nos. WDW410, WDW411, WDW312, and WDW413 requiring relocation of the truck entrance of the Facility from Creighton Road to FM3083.

53. For the reasons set out in the Findings of Fact, the court reporting and transcript costs should be apportioned between Applicant, Lone Star, and the Aligned Protestants in accordance with their agreement.

NOW, THEREFORE, BE IT ORDERED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, IN ACCORDANCE WITH THESE FINDINGS OF FACT AND CONCLUSIONS OF LAW, THAT:

1. Permit Nos. WDW410, WDW411, WDW412 and WDW413 for four Class I Underground Injection Control wells in Montgomery County, Texas, are hereby issued to TexCom Gulf Disposal LLC.

2. Permit No. WDW410 shall contain the additional conditions described in Conclusion of Law No. 51.

3. Permit Nos. WDW410, WDW411, WDW312, and WDW413 shall contain the additional condition described in Conclusion of Law No. 52.

4. All other motions, requests for specific Findings of Fact or Conclusions of Law, and other requests for general and specific relief, if not expressly granted herein, are hereby denied for want of merit.

5. The effective date of this Order is the date the Order is final, as provided by 30 TEX. ADMIN. CODE § 80.273 and § 2001.144 of the Texas Administrative Procedure Act, TEX. GOV'T CODE ANN.

6. The Chief Clerk of the Commission shall forward a copy of this Order to all parties.

7. If any provision, sentence, clause, or phrase of this Order is for any reason held to be invalid, the invalidity of any portion shall not affect the validity of the remaining portions of this Order.

Issued:

TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

_____
Buddy Garcia, Chairman